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AUTHOR Durrant, Joan E.; And Others
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ABSTRACT

The purpose of this study was to determine whether different behavioral subtypes of learning-disabled (LD) children form different beliefs regarding their social successes and failures. The 75 subjects (ages 8 to 13) comprised 5 matched groups of 15 children each differing in the presence or absence of learning disabilities, behavior disorders, referral, and externalizing/internalizing symptoms. Results indicated that the social attributions of LD children are heterogeneous and differ acording to socio-emotional functioning. The presence of a learning disability by itself was not necessarily associated with a maladaptive attributional style. However, children who demonstrate behavioral difficulties in combination with learning difficulties exhibited different attributional patterns than did LD or non-LD children without behavior disorders. The LD children demonstrating externalizing symptoms attributed social successes to their own characteristics to a greater extent than did children in the non-behavior-disordered LD or community control groups. The LD externalizers were more likely to ascribe social failures to third-party intervention than were children in either of the two control groups, and twice as often as did the LD non-behavior-disordered group. Non-behavior-disordered LD children did not differ significantly from non-behavior-disordered non-LD children in terms of their attributions for social outcomes. (Approximately 50 references) (JDD)

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Attributions for Social Experiences Among Three Behavioral Subgroups of Learning Disabled Children

Joan E. Durrant
University of Manitoba

Charles E. Cunningham
McMaster University and Chedoke-McMaster Hosptials

Sylvia Voelker
University of Windsor

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Address all correspondence to Joan E. Durrant, Department of Family Studies, University of Manitoba, Winnipeg, Manitoba, Canada, R3T 2N2.

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Abstract

The purpose of the present study was to determine whether different behavioral subtypes of LD children form different beliefs regarding their social successes and failures. The 75 subjects comprised 5 carefully-matched groups of 15 children: 1) non-LD, non-behavior-disordered, non-referred, 2) non-LD, non-behavior-disordered, clinic-referred, 3) LD, non-behavior-disordered, 4) LD with externalizing symptoms, and 5) LD with externalizing and internalizing symptoms. Results indicate that the social attributions of LD children are heterogeneous and differ according to socio-emotional functioning. The presence of a learning disability by itself is not necessarily associated with a maladaptive attributional style. However, children who demonstrate behavioral difficulties in combination with learning difficulties exhibit different attributional patterns than do LD or non-LD children without behavior disorders. Implications for education and treatment are discussed.

The social difficulties frequently experienced by learning-disabled (LD) children have been well-documented. They tend to have lower social status than their non-disabled peers (Bruininks, 1978; Bryan, 1974, 1976, 1978; Perlmutter, Crocker, Cordray, & Garstecki, 1983; Siperstein, Bopp, & Bak, 1978), demonstrate lower levels of social competence (McConaughty & Ritter, 1985), are frequently rejected or ignored by classmates and teachers (Bryan, 1974, 1976, 1978), and tend to maintain their lower level of popularity over time and across classrooms (Bryan, 1976). Their social isolation may be mitigated by the presence of nonacademic talents or physical attractiveness, but even LD children with strong skills in non-academic areas rarely, if ever, occupy the most popular social positions (Siperstein et al., 1978).

On the basis of Weiner's (1979, 1985, 1986) attribution theory, it might be expected that, after experiencing repeated social failure, LD children would develop a set of expectancies regarding the likelihood of success in social situations which would be based upon their beliefs about the causes of social outcomes. These causal attributions may further contribute to and compound their social difficulties. A history of repeated failure may, for example, increase the likelihood that LD children will attribute social successes to luck and failures to a lack of social competence. Such an attributional pattern may

eventually result in anxiety (Leary & Miller, 1986), depression (Nolen-Hoeksma, Girgus, & Seligman, 1986) and isolation (Dodge, 1983).

Investigations of LD children's attributions for achievement outcomes (Aponik & Dembo, 1983; Cooley & Ayres, 1988; Jacobsen, Lowery, & DuCette. 1986; Kistner, Osborne, & LeVerrier, 1988; Pearl, 1982; Pearl, Bryan, & Donahue, 1980; Pearl, Bryan, & Herzog, 1983; Rogers & Saklofsky, 1985) have suggested that the causal beliefs of LD children are strongly related to their motivation and behavior in achievement-related contexts. It is, therefore, surprising that few studies of LD children's social beliefs and their implications for the self-concepts, behavioral adjustment, and treatment of this group have been undertaken. To date, only one study has specifically investigated the social attributions of this population. Sobol, Earn, Bennett, and Humphries (1983) found that their sample of LD children most frequently attributed self-initiated social successes to luck, and thus held low expectations of social success.

LD children, however, do not constitute a homogeneous population in terms of their socio-emotional functioning. Factor- and cluster-analytic studies of the personality functioning of LD children have indicated that this population is comprised of various personality subtypes. While some of these children do demonstrate significant degrees of anxiety-withdrawal

(Grieger & Richards, 1976; McKinney & Speece, 1986; Paraskevopolous & McCarthy, 1970; Porter & Rourke, 1985), others demonstrate conduct problems (Epstein, Cullinan, & Rosemier, 1983; Grieger & Richards, 1976; Paraskevopolous & McCarthy, 1970; Porter & Rourke, 1985; McKinney & Speece, 1986). Still others exhibit global impairment - i.e., both internalizing and externalizing difficulties (Grieger & Richards, 1976; McKinney & Speece, 1986).

Further, there is a substantial group of LD children who do not exhibit socio-emotional difficulties and are coping with their difficulties quite successfully (McKinney & Speece, 1986; Porter & Rourke, 1985; Speece, McKinney, & Appelbaum, 1985). Carlson (1987) has also demonstrated that a subgroup of LD boys exhibit a level of social competence equivalent to that of their normally-achieving peers.

The social experiences of these subgroups of LD children are likely to differ significantly and there is reason to expect that their different behavioral styles are related to differences in their understanding of and explanations for social outcomes. Children's maladaptive causal attributions have been linked to poor self-concept (Ames & Felker, 1979; Bar-Tal, 1982; Marsh, Relich, & Smith, 1983), aggression (Dodge, 1980; Dodge & Coie, 1987), depression (Friedlander, Traylor, & Weiss, 1987), low social status (Ames, Ames, & Garrison, 1977; Goetz & Dweck, 1980;

Sobol & Earn, 1985), and disruption of goal-directed behavior (Goetz & Dweck, 1980). As these are characteristics which describe the behavior of subgroups of LD children, it would seem to be worthwhile to investigate the relationship between attributional patterns and socio-emotional functioning within this population.

The purpose of the present study was to investigate, using carefully-defined comparison groups, the social attributions of LD children exhibiting differential behavior patterns. It was hypothesized that different attributional patterns would be observed among behavioral subtypes of LD children, reflecting their different experiences of and contributions to the social environment.

Specifically, it was predicted that LD children exhibiting significant levels of anxiety would attribute their social successes to external causes and their failures to internal causes more frequently than would LD or non-LD children displaying average anxiety levels. This attributional pattern would be consistent with the low expectancy of success associated with anxiety (Margalit & Zak, 1984). Externalizing LD children were expected to attribute their social successes to internal factors and their failures to external factors more frequently than non-behavior-disordered LD or non-LD children. Such an attributional style would reflect the type of cognitive process

used to justify hostile actions that is often displayed by children with externalizing behavior disorders (Dodge, 1980; Murray & Whittenberger, 1983). Non-behavior-disordered LD children were not expected to differ significantly from non-behavior-disordered non-LD children in terms of their attributional patterns, as their adequate socio-emotional functioning would suggest that they are able to cope successfully with their academic difficulties.

METHOD

Subjects

Sixty subjects between the ages of 8-0 and 13-11 were selected from the populations of children undergoing treatment at one of two outpatient mental health agencies or attending a private school for LD children, all of which are located in Southwestern Ontario. Fifteen additional subjects were recruited from the general community. All subjects obtained Full Scale IQs of at least 85 on the Wechsler Intelligence Scale for Children-Revised (WISC-R; Wechsler, 1974).

Children were classified as LD if they demonstrated a discrepancy of at least one standard deviation between a score on: 1) the Wide Range Achievement Test (WRAT; Jastak, Bijou, & Jastak, 1978) Reading and/or Spelling subtests and WISC-R VIQ; and/or 2) the WRAT Arithmetic subtest and WISC-R PIQ. Non-LD

children obtained WRAT Reading and Spelling scores which fell within one standard deviation of their WISC-R VIQs, and WRAT Arithmetic scores which fell within one standard deviation of their PIQs. This is a conservative definition based on the finding by Rourke and Finlayson (1978) that reading and spelling achievement are correlated with verbal IQ, while arithmetic achievement is related to non-verbal IQ. Thus, the subjects were classified as LD on the basis of discrepancies between specific and correlated achievement and ability scores, rather than between achievement and FIQ which represents an average of depressed and elevated scores.

Children determined to have defective hearing or vision, who demonstrated severe emotional disturbance, or who had suffered traumatic brain injury or severe cultural neglect were excluded from the subject sample. All subjects spoke English as their primary language.

Clinical Groups

The 45 LD subjects were classified on the basis of their scores on the Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1983) into three groups of 15 subjects (12 males and 3 females). These three LD groups were defined as follows: Normals (LDNorm) obtained T-scores of less than 68 on the Externalizing and Internalizing broad-band scales, Externalizers (LDExt) obtained T-scores greater than 70 on the Externalizing

scale and less than 68 on the Internalizing scale, and children of "Mixed" symptomatology (LDExt/Int) obtained T-scores of greater than 70 on the Externalizing and Internalizing scales. A T-score of 70 falls at the 98th percentile. All of the behavior-disordered children had been assigned a diagnosis from the Diagnostic and Statistical Manual of Mental Disorders-Revised (DSM-III-R; American Psychiatric Association, 1987) by a licensed psychologist or psychiatrist within the previous 6 months. The LD non-behavior-disordered children did not meet DSM-III criteria for any behavior disorders. All LD children had been certified as LD within the previous 6 months.

Control Groups

The fourth group was a non-LD clinic control (ClCont) sample of children who obtained T-scores of less than 68 on both the Externalizing and Internalizing scales of the CBCL (n=15). These children had been referred for assessment for reasons such as family dysfunction, mild academic difficulties, or other nonspecific problems. Thus, although they had undergone the same referral and assessment procedures as had subjects in the LD groups, they did not meet the criteria which defined learning disabilities or behavioral difficulties in the present study, nor did they meet DSM-III-R diagnostic criteria. The clinic control group was included to control for the nonspecific effects of referral on the social attributions and behavioral

characteristics of the subjects.

The fifth group (n=15) was recruited through ads in community newspapers and constituted a community control group (CoCont). None of these children had ever been referred for assessment or treatment. They obtained scores of less than 68 on both the Externalizing and Internalizing scales of the CBCL and did not meet the criteria for learning disability employed in the present study. There were 12 males and 3 females in each of these control groups.

Descriptive statistics are presented in Table 1 for the five subject groups. One-way analyses of variance were carried out to determine whether the groups differed on these variables. No significant differences were found between groups on age, SES, VIQ, PIQ, or FIQ.

Insert Table 1 about here.

There were significant differences between groups on reading, spelling, and arithmetic WRAT scores, as well as on internalizing and externalizing CBCL scores. Table 1 contains the F value and probability level for each of the measures. Student-Newman-Keuls tests of multiple comparisons revealed that the mean reading, spelling and arithmetic scores of the two control groups were significantly higher than those of the other

three groups, whose achievement scores did not differ significantly. The mean externalizing scores of the two behavior-disordered groups were significantly higher than those of the three non-behavior-disordered groups, whose externalizing scores were not significantly different. The LDExt/Int group obtained a mean internalizing score that was significantly higher than those obtained by the other four groups, whose internalizing scores did not differ significantly.

Attribution Measure

Most studies investigating children's attributions have employed highly structured forced-choice measures which have required subjects to select between a number of pre-determined attributional categories, namely ability, effort, luck, and task difficulty (for example, Cooley & Ayres, 1988; Friedlander, Traylor, & Weiss, 1987; Jacobsen, Lowery, & DuCette, 1986; Kistner, Osborne, & LeVerrier, 1988; Licht, Kistner, Ozkaragoz, Shapiro, & Clausen, 1985; Palmer, Drummond, Tollison, & Zinkgraff, 1982). These measures have been used to investigate achievement-related attributions and, therefore, the categories employed may not be relevant to social situations. In fact, Sobol et al. (1983) found that when LD children were asked to spontaneously generate explanations for social events, only one of the four categories generally employed in forced-choice measures (luck) was given as a cause. Therefore, an open-ended

questionnaire was employed in the present study in an attempt to explore the causes which subgroups of LD children spontaneously provide to explain social outcomes.

The attribution measure employed in the present study (Earn and Sobol, 1990) consisted of eight items, four of which represent self-initiated social situations (eg., "You ask a girl/boy on your street to play with you but she/he does not play with you. Why would this happen?"). The other four items present other-initiated social situations (eg., "A girl/boy in your class is having a party and you are invited. Why would that happen?"). Two of the items of each type have positive outcomes, while the other two present negative outcomes.

Children responded to the items on these two measures with causes or "categories" to which they attributed the outcomes described to them. Subjects who provided more than one category were asked to identify which of those causes was most important. These categories were coded according to a coding scheme which was largely based on that employed by Earn and Sobol (1990), but the classifications were altered slightly to accommodate the responses of this particular subject sample. The coding scheme consisted of the following categories: 1) Characteristics of Self (eg., "I'm nice."); 2) Other's Characteristics (eg., "He's a bully."); 3) Other's Motivation (eg., "She felt like it."); 4) Third-Party Intervention (eg., "His mother wouldn't let him.");

5) Personality Interaction (eg., "We're friends."); and 6) Interpersonal Evaluation (eg., "She likes me.").

A graduate student in Psychology, who was blind to the purpose of the study, was trained in the use of the coding scheme so that reliability of coding could be estimated. Cohen's Kappa was calculated and found to equal 87.8%.

RESULTS

As the variances across categories were highly heterogeneous, the causes to which subjects attributed positive and negative social outcomes were analyzed by means of a series of one-way ANOVAs conducted at each level of Category (1-6) and Outcome (Success, Failure). Tukey's post hoc tests were conducted to control for the Type I error rate. Category frequencies as percentages of total responses are presented in Table 2 for the five subject groups.

Insert Table 2 about here.

Successful Outcomes

There were no significant differences in the frequencies with which subjects in the five groups attributed social successes to other's characteristics, other's motivation, third-party intervention, or personality interaction ($p>.05$). The

LDExt group attributed successes to their own characteristics more frequently than did the CoCont, LDNorm, or LDExt/Int groups ($p<.001$), while the LDExt/Int subjects attributed successes to interpersonal evaluation more frequently than did subjects in the ClCont or LDExt groups ($p<.05$).

Failure Outcomes

The five groups did not differ significantly in the frequencies with which they attributed social failures to characteristics of self, other's characteristics, or other's motivation ($p>.05$). The LDExt children attributed failures to third-party intervention more frequently than did either of the two control groups ($p<.05$). The LDExt children also used personality interaction to explain failures more often than did children in the LDExt/Int group ($p<.05$). Finally, the LDExt/Int group made more failure attributions to interpersonal evaluation than did the LDExt group ($p<.05$).

DISCUSSION

The purpose of the present study was to determine whether different behavioral subtypes of LD children display different patterns of attributions for social outcomes. The results support the hypothesis that the social attributions of LD children are heterogeneous and differ according to socio-emotional functioning.

It was predicted that LD children demonstrating externalizing symptoms would attribute social successes to internal causes more frequently than would non-behavior-disordered LD or non-LD children. This hypothesis was partially supported; they attributed social successes to their own characteristics to a greater extent than did children in the non-behavior-disordered LD or community control groups. In fact, they attributed more than 40% of successes to this category. One implication of this finding is that such an internal, rather than interactional, locus of causality for social successes may indicate that relatively egocentric belief systems are contributing to the behavioral difficulties experienced by these children. Alternatively, as externalizers are likely to experience high rates of peer rejection (Milich & Landau, 1984) and negative reputational bias, their social successes may, in fact, be due to special effort on their part.

The LD externalizers were also expected to make more failure attributions to external factors than were the non-behavior-disordered LD or non-LD children. This hypothesis was also partially supported. The LD externalizers were significantly more likely to ascribe social failures to third-party intervention than were children in either of the two control groups. And, they attributed failures to this category twice as often as did the LD non-behavior-disordered group, although this

difference was not found to be statistically significant. Therefore, these children are more likely to place blame for their social failures on others' interference (e.g., "Other kids told them bad things about me that aren't true.") than are non-LD, non-behavior-disordered children. This finding offers partial support for the hypothesis that the attributional styles of LD externalizers would serve to justify their hostility. It is also consistent with the findings of Dodge (1980) who has demonstrated that, in hypothetical social situations with negative outcomes in which a peer's intentions are ambiguous, aggressive boys attribute hostile intent to the peer to a greater extent than do non-aggressive boys. Together with a strong tendency to take responsibility for social successes, this attributional pattern could protect one's self-concept while contributing to social difficulties.

The children demonstrating internalizing and externalizing symptoms were expected to attribute social successes to external factors more frequently than would non-internalizing LD or non-LD children. This hypothesis received partial support. Children in this group attributed 45% of social successes to others' evaluations of them, which was significantly higher than the number of success attributions made to this category by the clinic control or LD externalizing groups. Further, the LD externalizing and internalizing children attributed significantly

fewer of their social successes to their own characteristics than did the LD externalizing children. Consistent with these findings, such an attributional style has been associated in previous research with anxiety and/or withdrawal (Rothbaum & Weisz, 1989). These results may indicate that the LD externalizers who display significant levels of anxiety differ from the "pure" LD externalizers in that they recognize their behavioral difficulties and the effects that they have on their peers' feelings toward them.

This hypothesis gained further support through the finding that the LD externalizing and internalizing children attributed a greater number of social failures to others' evaluations of them than did the LD externalizers; 58% of their failure attributions were made to this category. Thus, although they did not make many purely internal failure attributions, as was originally predicted, they did demonstrate that peers' evaluations of their behaviour are particularly salient to them. Leary and Miller (1986) suggest that anxiety is increased by attributions which imply a lack of control that is threatening or embarrassing. Given that these children demonstrate significant social difficulties, this linkage may even be strengthened among this subgroup. This group was also found to make fewer failure attributions to personality interaction (e.g., "We don't get along.") than were the "pure" LD externalizers, a category which

implies a greater sharing of responsibility than does the category of interpersonal evaluation, which emphasizes another's subjective opinion of oneself.

Finally, it was predicted that non-behavior-disordered LD children would not differ significantly from non-behavior-disordered non-LD children in terms of their attributions for social outcomes. This hypothesis was fully supported. There were no differences between any of the three non-behavior-disordered groups on any of the six attributional categories for either successful or unsuccessful outcomes. The non-behavior-disordered LD group was no more likely to externalize success or internalize failure than was either of the non-LD non-behavior-disordered control groups. This finding is consistent with those of recent studies which have demonstrated that the self-concepts of non-behavior-disordered LD children do not differ from those of non-behavior-disordered non-LD children (Durrant, Cunningham, & Voelker, 1990) and that non-behavior-disordered LD children do not demonstrate more "helpless" beliefs regarding the causes of their academic difficulties than do non-behavior-disordered non-LD children (Durrant, Cunningham, & Voelker, 1988).

The findings of the present study suggest that the presence of a learning disability itself is not necessarily associated with social difficulties or maladaptive social attributions. It will be important for researchers to examine the conditions under

which LD children are able to cope successfully with their academic difficulties and develop adequate levels of social competence as well as perceptions of control over social outcomes.

On the other hand, it will be important for parents, educators, and therapists to assist those LD children experiencing troubled peer relationships to perceive the causes of their difficulties in more socially adaptive ways. This will require accurate assessment of each child's socio-emotional functioning and attributional patterns. Inclusion of both the behavioral and cognitive components of social interaction will likely enhance the effectiveness of attribution retraining or social skills training programs. Finally, a better understanding of the causal beliefs of socially successful LD children may help to provide more specific goals and directions to those designing treatment programs for LD children who are less socially competent.

REFERENCES

Achenbach, T.M., & Edelbrock, C. (1983). Manual for the Child Behavior Checklist and Revised Child Behavior Profile. Burlington, VT: University of Vermont Department of Department of Psychiatry.

American Psychiatric Association (1987). Diagnostic and statistical manual of mental disorders-revised. Washington, DC: Author.

Ames, C., & Felker, D.W. (1979). Effects of self-concept on children's causal attributions and self-reinforcement. Journal of Educational Psychology, 71, 613-619.

Ames, R., Ames, C., & Garrison, W. (1977). Children's causal ascriptions for positive and negative interpersonal outcomes. Psychological Reports, 41, 595-602.

Aponik, D.A., & Dembo, M.H. (1983). LD and normal adolescents' casual attributions of success and failure at different levels of task difficulty. Learning Disability Quarterly, 6, 31-39.

Bar-Tal, D. (1982). The effects of teachers' behavior on pupils' attributions: A review. In C. Antaki & C. Brewin (Eds.), Attributions and Psychological Change. London: Academic Press.

Bruininks, V.L. (1978). Peer status and personality characteristics of learning disabled and nondisabled students. Journal of Learning Disabilities, 11, 484-489.

Bryan, T.H. (1974). Peer popularity of learning disabled children. Journal of Learning Disabilities, 7, 621-625.

Bryan, T.H. (1976). Peer popularity of learning disabled children: A replication. Journal of Learning Disabilities, 9, 307-311.

Bryan, T.H. (1978). Social relationships and verbal interactions learning disabled children. Journal of Learning Disabilities, 11, 107-115.

Carlson, C.I. (1987). Social interaction goals and strategies of children with learning disabilities. Journal of Learning Disabilities, 20, 306-311.

Cooley, E.J., & Ayres, R.R. (1988). Self-concept and success-failure attributions of nonhandicapped students and students with learning disabilities. Journal of Learning Disabilities, 21, 174-178.

Dodge, K.A. (1980). Social cognition and children's aggressive behavior. Child Development, 51, 162-170.

Dodge, K. (1983). Behavioral antecedents of peer social status. Child Development, 54, 1386-1399.

Dodge, K.A., & Coie, J.D. (1987). Social-information-processing factors in reactive and proactive aggression in children's peer groups. Journal of Personality and Social Psychology, 53, 1146-1158.

Durrant, J.E., Cunningham, C.E., & Voelker, S. (1988, August). Attribution and behavior: Heterogeneity of LD children's explanations for academic outcomes. Paper presented at the 96th annual convention of the American Psychological Association, Atlanta.

Durrant, J.E., Cunningham, C.E., & Voelker, S. (1990). Academic, social, and general self-concepts of behavioral subtypes of learning disabled children. Journal of Educational Psychology, 82, 657-663.

Earn, B.M., & Sobol, M.P. (1990). A categorical analysis of children's attributions for social success & failure. Psychological Record, 40, 173-185.

Epstein, M.H., Cullinan, D., & Rosemier, R. (1983). Behavior problem patterns among the learning disabled: Boys aged 6-11. Learning Disability Quarterly, 6, 305-311.

Friedlander, S., Traylor, J.A., & Weiss, D.S. (1987). Depressive symptoms and attributional style in children. Personality and Social Psychology Bulletin, 12, 442-453.

Goetz, T.E., & Dweck, C.S. (1980). Learned helplessness in social situations. Journal of Personality and Social Psychology, 39, 246-255.

Grieger, R.M., & Richards, H.C. (1976). Prevalence and structure of behavior symptoms among children in special education and regular classroom settings. Journal of School Psychology, 14,

27-38.

Jacobsen, B., Lowery, B., & DuCette, J. (1986). Attributions of learning disabled children. Journal of Educational Psychology, 78, 59-64.

Jastak, J.F., Bijou, S.W., & Jastak, S. (1978). The Wide Range Achievement Test administration manual. Wilmington, DE: Jastak.

Kistner, J.A., Osborne, M., & LeVerrier, L. (1988). Causal attributions of learning-disabled children: Developmental patterns and relation to academic progress. Journal of Educational Psychology, 80, 82-89.

Leary, M.R., & Miller, R.S. (1986). Social Psychology and Dysfunctional Behavior: Origins, Diagnosis, and Treatment. New York: Springer-Verlag.

Licht, B.G., Kistner, J.A., Ozkaragoz, T., Shapiro, S., & Clausen, L. (1985). Causal attributions of learning disabled children: Individual differences and their implications for persistence. Journal of Educational Psychology, 77, 208-216.

Margalit, M., & Zak, I. (1984). Anxiety and self-concept of learning disabled children. Journal of Learning Disabilities, 17, 537-539.

Marsh, H.W., Relich, J.D., & Smith, I.D. (1983). Self-concept: The construct validity of interpretations based upon the SDQ. Journal of Personality and Social Psychology, 45, 173-187.

McConaughty, S.H., & Ritter, D.R. (1985). Social competence and behavioral problems of learning disabled boys aged 6-11. Journal of Learning Disabilities, 18, 547-553.

McKinney, J.D., & Speece, D.L. (1986). Academic consequences and longitudinal stability of behavioral subtypes of learning disabled children. Journal of Educational Psychology, 78, 365-372.

Milich, R., & Landau, S. (1984). A comparison of the social status and social behavior of aggressive and aggressive-withdrawn boys. Journal of Abnormal Child Psychology, 12, 277-288.

Murray, J., & Whittenberger, D. (1983). The aggressive, severely behavior disordered child. Journal of Learning Disabilities, 16, 76-80.

Nolen-Hoeksma, S., Girgus, J.S., & Seligman, M.E.P. (1986). Learned helplessness in children: A longitudinal study of depression, achievement, and explanatory style. Journal of Personality and Social Psychology, 51, 435-442.

Palmer, D.J., Drummond, F., Tollison, P., & Zinkgraff, S. (1982). An attributional investigation of performance outcomes for learning-disabled and normal-achieving pupils. Journal of Special Education, 16, 207-219.

Paraskevopolous, J., & McCarthy, J.M. (1970). Behavior patterns of children with special learning disabilities. Psychology

in the Schools, 7, 42-46.

Pearl, R. (1982). LD children's attributions for success and failure: A replication with a labeled LD sample. Learning Disability Quarterly, 5, 173-176.

Pearl, R., Bryan, Y., & Donahue, M. (1980). Learning disabled children's attributions for success and failure. Learning Disability Quarterly, 3, 3-9.

Pearl, R., Bryan, T., & Herzog, A. (1983). Learning disabled disabled and non-disabled children's strategy analyses under high and low success conditions. Learning Disability Quarterly, 6, 67-74.

Perlmutter, B.F., Crocker, J., Cordray, D., & Garstecki, D. (1983). Sociometric status and related personality characteristics of mainstreamed learning disabled adolescents. Learning Disability Quarterly, 6, 20-30.

Porter, J.E., & Rourke, B.P. (1985). Socioemotional functioning of learning-disabled children: A subtypal analysis of personality patterns. In B.P. Rourke (Ed.), Learning Disabilities in Children: Advances in Subtype Analysis. New York: Guilford Press.

Rogers, H., & Saklofsky, D.H. (1985). Self-concepts, locus of control and performance expectations of learning disabled children. Journal of Learning Disabilities, 18, 273-278.

Rothbaum, F., & Weisz, J.R. (1980). Child Psychopathology and the Quest for Control. London: Sage.

Rourke, B.P., & Finlayson, M.A.J. (1978). Neuropsychological significance of variations in patterns of academic performance: Verbal and visual-spatial abilities. Journal of Abnormal Child Psychology, 6, 121-133.

Siperstein, G.N., Bopp, M.J., & Bak, J.J. (1978). Social status of learning disabled children. Journal of Learning Disabilities, 11, 98-102.

Sobol, M.P., & Earn, B.M. (1985). Assessment of children's attributions for social experiences: Implications for social skills training. In B.H. Schneider, K.H. Rubin, & J.E. Ledingham (Eds.), Peer Relationships and Social Skills in Childhood: Issues in Assessment and Training (pp. 97-110). New York: Springer-Verlag.

Sobol, M.P., Earn, B.M., Bennett, D., & Humphries, T. (1983). A categorical analysis of the social attributions of learning-disabled children. Journal of Abnormal Child Psychology, 11, 217-227.

Speece, D.L., McKinney, J.D., & Appelbaum, M.I. (1985). Classification and validation of behavioral subtypes of learning-disabled children. Journal of Educational Psychology, 77, 67-77.

Wechsler, D. (1974). Manual for the Wechsler Intelligence Scale for Children-Revised. New York: Psychological Corporation.

Weiner, B. (1979). A theory of motivation for some classroom experiences. Journal of Educational Psychology, 71, 3-25.

Weiner, B. (1985). An attributional theory of motivation and emotion. Psychological Review, 92, 548-573.

Weiner, B. (1986). An Attributional Theory of Motivation and Emotion. New York: Springer-Verlag.

Table 1

Descriptive Statistics for Subject Sample

Variable Name	Group Means					
	CoCont n=15	ClCont n=15	LDNorm n=15	LDExt n=15	LDExt/Int n=15	F Value
Age (in months)	130.47 (17.59)	123.87 (23.95)	130.47 (15.89)	120.87 (16.35)	129.00 (21.75)	.76
SES	47.51 (16.25)	46.20 (17.63)	44.59 (18.36)	39.27 (12.98)	37.74 (13.16)	1.01
VIQ	105.00 (14.52)	104.60 (15.21)	101.53 (13.18)	99.60 (9.77)	101.87 (10.62)	.46
PIQ	105.33 (8.34)	101.67 (12.45)	115.80 (15.78)	105.00 (14.44)	107.00 (13.92)	2.41
FIQ	106.13 (9.88)	103.13 (13.46)	109.00 (13.72)	102.00 (9.11)	104.53 (11.48)	.82
Reading	103.87a (13.56)	105.73a (15.91)	88.47b (16.71)	85.47b (16.59)	87.93b (17.36)	5.44**
Spelling	102.27a (14.94)	104.33a (14.24)	88.67b (15.16)	85.80b (16.66)	82.33b (16.11)	6.57**
Arithmetic	98.60a (10.64)	99.87a (18.49)	86.20b (17.02)	85.20b (12.43)	83.47b (17.44)	3.88**
Externalizing	54.47a (6.66)	57.80a (6.18)	61.07a (6.66)	74.53b (3.64)	77.13b (4.97)	47.34**
Internalizing	52.93a (7.68)	56.67a (8.30)	60.93a (6.36)	64.93a (3.15)	77.80b (3.93)	36.46**

Note. CoCont = community control group, ClCont = clinic control group, LDNorm = LD non-behavior-disordered group, LDExt = LD externalizing group, LDExt/Int = LD externalizing/internalizing group.

Means with the same letter are not significantly different.

Figures in parentheses are standard deviations.

**p<.01

Table 2

Percentages of Category Use by Group

	Group									
	CoCont		ClCont		LDNorm		LDExt		LDExt/Int	
	Outcome		Outcome		Outcome		Outcome		Outcome	
Category	S	F	S	F	S	F	S	F	S	F
Characteristics of self	10.0	8.3	28.3	8.3	13.3	10.0	43.3	15.0	15.0	8.3
Other's characteristics	5.0	8.3	5.0	15.0	5.0	5.0	3.3	1.7	0.0	10.0
Other's motivation	15.0	18.3	16.7	20.0	26.7	26.7	11.7	15.0	18.3	15.0
Third-party intervention	0.0	3.3	1.7	3.3	0.0	8.3	0.0	16.7	0.0	5.0
Personality interaction	35.0	11.7	33.3	16.7	20.0	8.3	20.0	21.7	16.7	0.0
Interpersonal evaluation	30.0	41.7	13.3	36.7	30.0	30.0	15.0	28.3	45.0	58.3

Note. CoCont = community control group, ClCont = clinic control group, LDNorm = LD non-behavior-disordered group, LDExt = LD externalizing group, LDExt/Int = LD externalizing/internalizing group.
S = sucessful outcome, F = failure outcome.